

CURRICULUM VITAE

Name: Gregory A. Prince, D.D.S., Ph.D.

Birth: May 1, 1948, Santa Monica, California.

Citizenship: United States.

Marital Status: Married, three children.

Education:

A.S.: Dixie College (St. George, Utah) - 1965-1967.

D.D.S.: University of California, Los Angeles, School of Dentistry - 1969-1973.

Ph.D.: University of California, Los Angeles, Graduate Division, Department of Pathology, School of Medicine - 1973-1975.

Social Service: Missionary, Brazilian South Mission (Porto Alegre, Brazil) - The Church of Jesus Christ of Latter-day Saints - 1967-1969.

Member, Board of Trustees, Dialogue Foundation - 1999-present.

Member, National Advisory Board, Dixie State College of Utah - 2000 - present.

Employment:

1975-1977: Staff Fellow/Senior Staff Fellow, Laboratory of Oral Medicine, National Institute of Dental Research, National Institutes of Health, Bethesda, Maryland.

1977-1986: Senior Staff Fellow/Biologist/Expert, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland.

1979-1994: Dentist, self-employed in private general practice, Gaithersburg, Maryland.

1983-1990: Clinical Assistant Professor, Department of Pathology, School of Medicine, Georgetown University, Washington, D.C.

- 1985-present: Clinical Assistant Professor, Department of Pathology, School of Medicine, University of California, Los Angeles.
- 1986-present: Research Associate Professor (1986-1991) and Research Professor (1991-present), Department of Pediatrics, F. Edward Hebert School of Medicine, Uniformed Services University of the Health Sciences, Bethesda, Maryland.
- 1987-1990: Adjunct Associate Professor, Department of International Health, School of Hygiene and Public Health, The Johns Hopkins University, Baltimore, Maryland.
- 1990-1999: Vice President, Virion Systems, Inc., Rockville, Maryland.
- 1999-present: President and CEO, Virion Systems, Inc., Rockville, Maryland
- Societies: Diplomate, National Board of Dental Examiners - 1973.
California Dental License #23367 - 1973.
Maryland Dental License #6209 - 1976.
American Association of Immunologists - 1981.

Honors and Other Special Scientific Recognition:

Phi Theta Kappa (National Junior College Scholastic Honorary) - 1967.
Valedictorian, Dixie College - 1967.
Regents' Scholar, University of California - 1970-1973.
Omicron Kappa Upsilon (National Dental Scholastic Honorary) - 1973.
Alpha Omega Award (Dental Valedictorian) - 1973.
Doctor of Dental Surgery, Summa Cum Laude - 1973.
Dixie College Distinguished Citizen Award - 1995.
Dixie College Hall of Fame - 1999.

SCIENTIFIC PUBLICATIONS:

1. Prince, G. A. and Porter, D. D.: Cryostat microtomy of lung tissue in an expanded state. *Stain Technol.* 50:43-45, 1975.
2. Prince, G. A. and Porter, D. D.: The pathogenesis of respiratory syncytial virus infection in infant ferrets. *Am. J. Pathol.* 82:339-352, 1976.
3. Prince, G. A., Jenson, A. B., Billups, L. C. and Notkins, A. L.: Infection of human pancreatic beta cell cultures with mumps virus. *Nature* 271:158-161, 1978.
4. Prince, G. A., Jenson, A. B., Horswood, R. L., Camargo, E. and Chanock, R. M.: The pathogenesis of respiratory syncytial virus infection in cotton rats. *Am. J. Pathol.* 93:771-791, 1978.
5. Prince, G. A., Horswood, R. L., Berndt, J. A., Suffin, S. C. and Chanock, R. M.: Respiratory syncytial virus infection in inbred mice. *Infect. Immun.* 26:764-766, 1979.
6. Prince, G. A., Potash, L., Horswood, R. L., Camargo, E., Suffin, S. C., Johnson, R. A. and Chanock, R. M.: Intramuscular inoculation of live respiratory syncytial virus induces immunity in cotton rats. *Infect. Immun.* 23:723-728, 1979.
7. Prince, G. A., Suffin, S. C., Prevar, D. A., Camargo, E., Sly, D. L., London, W. T. and Chanock, R. M.: Respiratory syncytial virus infection in owl monkeys: Viral shedding, immunological response, and associated illness caused by wild-type virus and two temperature-sensitive mutants. *Infect. Immun.* 26:1009-1013, 1979.
8. Suffin, S. C., Prince, G. A., Muck, K. B. and Porter, D. D.: Ontogeny of the humoral immune response in the ferret. *J. Immunol.* 123:6-9, 1979.
9. Suffin, S. C., Prince, G. A., Muck, K. B. and Porter, D. D.: Immunoprophylaxis of respiratory syncytial virus infection in the infant ferret. *J. Immunol.* 123:10-14, 1979.
10. Porter, D. D., Muck, K. B. and Prince, G. A.: The age dependence of respiratory syncytial virus growth in ferret lung can be shown in organ and monolayer cultures. *Clin. Immunol. Immunopathol.* 15:415-423, 1980.
11. Suffin, S. C., Kaufman, A. F., Whitaker, B., Muck, K. B., Prince, G. A. and Porter, D. D.: *Legionella pneumophila*: Identification in tissue sections by a new immunoenzymatic procedure. *Arch. Pathol. Lab. Med.* 104:283-286, 1980.
12. Suffin, S. C., Prince, G. A., Hocko, J. and Chanock, R. M.: Immunoenzymatic examination of autoptic tissues from the outbreak of fatal infantile disease in Naples, in 1978-1979. *Annali dell Instituto Superiore di Sanita (Rome)* 17:777-782, 1981.

13. Johnson, R. A., Prince, G. A., Suffin, S. C., Horswood, R. L. and Chanock, R. M.: Respiratory syncytial virus infection in cyclophosphamide-treated cotton rats. *Infect. Immun.* 37:369-373, 1982.
14. Prince, G. A., Horswood, R. L., Camargo, E., Suffin, S. C. and Chanock, R. M.: Parenteral immunization with live respiratory syncytial virus is blocked in seropositive cotton rats. *Infect. Immun.* 37:1074-1078, 1982.
15. Prince, G. A., Horswood, R. L., Camargo, E., Koenig, D. and Chanock, R. M.: Mechanisms of immunity to respiratory syncytial virus in cotton rats. *Infect. Immun.* 42:81-87, 1983.
16. Prince, G. A., Hemming, V. G., Horswood, R. L. and Chanock, R. M.: Immunoprophylaxis and immunotherapy of respiratory syncytial virus infection in the cotton rat. *Virus Res.* 3:193-206, 1985.
17. Hemming, V. G., Prince, G. A., Horswood, R. L., London, W. T., Murphy, B. R., Walsh, E. E., Fischer, G. W., Weisman, L. E., Baron, P. A. and Chanock, R. M.: Studies of passive immunity for infections of respiratory syncytial virus in the respiratory tract of a primate model. *J. Infect. Dis.* 152:1083-1086, 1985.
18. Prince, G. A., Horswood, R. L. and Chanock, R. M.: Quantitative aspects of passive immunity to respiratory syncytial virus infection in infant cotton rats. *J. Virol.* 55:517-520, 1985.
19. Prince, G. A., Horswood, R. L., Koenig, D. W. and Chanock, R. M.: Antigenic analysis of a putative new strain of respiratory syncytial virus. *J. Infect. Dis.* 151:634-637, 1985.
20. Elango, N., Prince, G. A., Murphy, B. R., Venkatensan, S., Chanock, R. M. and Moss, B.: Resistance to human respiratory syncytial virus (RSV) infection induced by immunization of cotton rats with recombinant vaccinia virus expressing the RSV G glycoprotein. *Proc. Nat. Acad. Sci. USA* 83:1906-1910, 1986.
21. Hemming, V. G. and Prince, G. A.: Intravenous immunoglobulin G in viral respiratory infections for newborns and infants. *Pediatr. Infect. Dis.* 5:S204-S206, 1986.
22. Hemming, V. G., Prince, G. A., London, W. T., Murphy, B. R., Baron, P. A., Horswood, R. L., Fischer, G. W. and Chanock, R. M.: Immunoglobulins in respiratory syncytial virus infections. In: *Clinical Use of Intravenous Immunoglobulins*. London, Academic Press Inc., 1986, pp. 285-294.
23. Murphy, B. R., Graham, B. S., Prince, G. A., Walsh, E. E., Chanock, R. M., Karzon, D. T. and Wright, P. F.: Serum and nasal-wash immunoglobulin G and A antibody responses of infants and children to respiratory syncytial virus F and G glycoproteins following primary infection. *J. Clin. Microbiol.* 23:1009-1014, 1986.

24. Murphy, B. R., Prince, G. A., Walsh, E. E., Kim, H. W., Hemming, V. G., Rodriguez, W. and Chanock, R. M.: Dissociation between serum neutralizing and glycoprotein antibody responses of infants and children who received inactivated respiratory syncytial virus vaccine. *J. Clin. Microbiol.*, 24:197-202, 1986.
25. Olmsted, R. A., Elango, N., Prince, G. A., Murphy, B. R., Johnson, P. R., Moss, B., Chanock, R. M. and Collins, P. L.: Expression of the F glycoprotein of respiratory syncytial virus by a recombinant vaccinia virus: Comparison of the individual contributions of the F and G glycoproteins to host immunity. *Proc. Nat. Acad. Sci. USA* 83:7462-7466, 1986.
26. Prince, G. A., Hemming, V. G. and Chanock, R. M.: The use of purified immunoglobulin in the therapy of respiratory syncytial virus infection. *Pediatr. Infect. Dis.* 5:S201-S203, 1986.
27. Prince, G. A., Jenson, A. B., Hemming, V. G., Murphy, B. R., Walsh, E. E., Horswood, R. L. and Chanock, R. M.: Enhancement of respiratory syncytial virus pulmonary pathology in cotton rats by intramuscular inoculation of formalin inactivated virus. *J. Virol.* 57:721-728, 1986.
28. Prince, G. A., Murphy, B. R., Chanock, R. M., Hemming, V. G. and Walsh, E. E.: Mechanism by which intramuscular inoculation of formalin-inactivated respiratory syncytial virus (RSV) enhances pulmonary pathology in cotton rats subsequently infected with RS virus. In: Brown, F., Chanock, R. M. and Lerner, R. A. (eds.): *Vaccines 86: New Approaches to Immunization*. New York, Cold Spring Harbor, 1986, pp. 261-266.
29. Murphy, B. R., Alling, D. W., Snyder, M. H., Walsh, E. E., Prince, G. A., Chanock, R. M., Hemming, V. G., Rodriguez, W., Kim, H. W., Graham, B. S. and Wright, P. F.: The effect of age and preexisting antibody on serum antibody response of infants and children to the F and G glycoprotein during respiratory syncytial virus infection. *J. Clin. Microbiol.* 24:894-898, 1986.
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32. Murphy, B. R., Prince, G. A., Wagner, D. K., Walsh, E. E. and Chanock, R. M.: The immune response of humans and cotton rats to respiratory syncytial virus (RSV) infection or formalin-inactivated vaccine. In: Brown, F., et al. (eds.): *Vaccines 87: Modern Approaches to New Vaccines Including Prevention of AIDS*. Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, 1987, pp. 290-295.

33. Ginsberg, H. S., Valdesuso, J., Horswood, R. L., Chanock, R. M. and Prince, G. A.: Adenovirus gene products affecting pathogenesis. In: Brown, F., et al. (eds.): *Vaccines 87: Modern Approaches to New Vaccines Including Prevention of AIDS*. Cold Spring Harbor Laboratory, Cold Spring Harbor, New York, 1987, pp. 322-326.
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35. Johnson, P. R., Olmsted, R. A., Prince, G. A., Murphy, B. R., Alling, D. W., Walsh, E. E. and Collins, P. L.: Antigenic relatedness between the glycoproteins of human respiratory syncytial virus subgroups A and B: Evaluation of the contributions of the F and G glycoproteins to immunity. *J. Virol.* 61:3163-3166, 1987.
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39. Hemming, V. G., Prince, G. A., Rodriguez, W., Kim, H. W., Brandt, C. D., Parrott, R. H., London, W. T., Fischer, G. W., Baron, P. A. and Henson, S. A.: Respiratory syncytial virus infections and intravenous gammaglobulins. *Pediat. Infect. Dis.* 7:S103-S106, 1988.
40. Chanock, R. M., Murphy, B. R., Collins, P. L., Coelingh, K. V. W., Olmsted, R. A., Snyder, M. H., Spriggs, M. K., Prince, G. A., Moss, B., Flores, J., Gorziglia, M. and Kapikian, A. Z.: Live viral vaccines for respiratory and enteric tract diseases. *Vaccines* 6:129-133, 1988.
41. Prince, G. A., Hemming, V. G., Murphy, B. R. and Chanock, R. M.: The prophylactic and therapeutic effects of serum antibody on respiratory syncytial virus infection of laboratory animals. In: Strober, W. et al. (eds): *Mucosal Immunity and Infections at Mucosal Surfaces*. New York, Oxford University Press, 1988, pp. 279-283.

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45. Olmsted, R. A., Buller, R. M. L., Collins, P. L., London, W. T., Beeler, J. A., Prince, G. A., Chanock, R. M. and Murphy, B. R.: Evaluation in non-human primates of the safety, immunogenicity and efficacy of recombinant vaccinia viruses expressing the F and G glycoproteins of respiratory syncytial virus. *Vaccine* 6:519-524, 1988.
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48. Murphy, B. R., Collins, P. L., Chanock, R. M. and Prince, G. A.: Intranasal immunization with Vaccinia-RS virus recombinant viruses is superior to intradermal immunization in animals with passively acquired RS virus antibodies. In: Lerner, R. A., Ginsberg, H., Chanock, R. M. and Brown, F. (eds.): *Vaccines 89: Modern Approaches to New Vaccines Including Prevention of AIDS*. New York, Cold Spring Harbor Laboratory, 1989, pp. 501-505.
49. Ginsberg, H. S. and Prince, G. A.: Gene functions directing adenovirus pathogenesis. In: Notkins, A. L. et al. (eds.): *Concepts in Viral Pathogenesis III*. Springer-Verlag New York Incorporated, New York, NY, 1989, pp. 275-281.
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51. Ginsberg, H. S., Lundholm-Beauchamp, U., Horswood, R. L., Pernis, B., Wold, W. S. M., Chanock, R. M. and Prince, G. A.: Role of early region 3 (E3) in pathogenesis of adenovirus disease. *Proc. Nat. Acad. Sci. USA* 86:3823-3827, 1989.
52. Murphy, B. R., Sotnikov, A., Paradiso, P. R., Hildreth, S. W., Jenson, A. B., Baggs, R. B., Lawrence, L., Zubak, J. J., Chanock, R. M., Beeler, J. A. and Prince, G. A.: Immunization of cotton rats with the fusion (F) and large (G) glycoproteins of respiratory syncytial virus (RSV) protects against RSV challenge without potentiating RSV disease. *Vaccine* 7:533-540, 1989.
53. Collins, P. L., Prince, G. A., Camargo, E., Purcell, R. H., Chanock, R. M., Murphy, B. R., Davis, A. R., Lubeck, M. D., Mizutani, S. and Hung, P. P.: Evaluation of the protective efficacy of recombinant vaccinia viruses and adenoviruses that express respiratory syncytial virus glycoproteins. In: Brown, F., Chanock, R. M., Ginsberg, H. S. and Lerner, R. A. (eds.): *Vaccines 90: Modern Approaches to New Vaccines Including Prevention of AIDS*. New York, Cold Spring Harbor Laboratory Press, 1990, pp. 79-84.
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59. Ginsberg, H. S., Moldawer, L. L., Sehgal, P. B., Redington, M., Kilian, P. L., Chanock, R. M. and Prince, G. A.: A mouse model for investigating the molecular pathogenesis of adenovirus pneumonia. *Proc. Nat. Acad. Sci. USA* 88:1651-1655, 1991.

60. Hemming, V. G. and Prince, G. A.: Passive immunization for the protection of infants and young children from respiratory infection by respiratory syncytial virus. In: Imbach, P. (ed.): *Immunotherapy With Intravenous Immunoglobulins*. London, Academic Press, Ltd., 1991, pp. 103-112.
61. Porter, D. D., Prince, G. A., Hemming, V. G. and Porter, H. G.: Pathogenesis of human parainfluenza virus type 3 infection in two species of cotton rats: *Sigmodon hispidus* develops bronchiolitis while *Sigmodon fulviventer* develops interstitial pneumonia. *J. Virol.* 65:103-111, 1991.
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65. Prince, G. A., Redington, M., Piazza, F. M., Hemming, V. G.: Bovine respiratory syncytial virus provides protection against human respiratory syncytial virus infection in cotton rats and primates. In: *Animal Models of Respiratory Syncytial Virus Infections*. Lyon, France, Edition Fondation Marcel Merieux, 1991, pp. 133-135.
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69. Piazza, F. M., Johnson, S. A., Darnell, M. E. R., Porter, D. D., Hemming, V. G., Prince, G. A.: Bovine respiratory syncytial virus protects cotton rats against human respiratory syncytial virus infection. *J. Virol.* 67:1503-1510, 1993.

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